Adherence to Therapeutic Footwear in Diabetic Patients with Previous Diabetic Foot Ulcer

Adriani E, Proietti L.,Bergesi L., Lorusso G., Zimbile A., Greco L., Bonanni F.R., Uccioli L., Lauro D., Meloni M.

University Hospital of Tor Vergata, Rome, Italy

Introduction

Diabetic foot ulcer (DFU) is a major complication of diabetes mellitus, associated with high morbidity and risk of amputation. Therapeutic footwear is a key preventive strategy for ulcer recurrence in patients with a history of DFU.

Aims

- Analyze the adherence to therapeutic footwear in diabetic patients with a previous DFU;
- The impact of therapeutic adherence in reducing the risk of ulcer recurrence was evaluated.

Methods

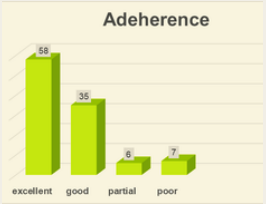
- Monocentric retrospective study;
- Patients monitored every 1-3 months at dedicated diabetic foot clinic;
- Adherence based on Likert-scale questionnaire [1];
- Ulcer recurrence and amputation recorded at 1-year.

Results

Baseline Characteristics	Value
N. Patients	106
Age, mean ± SD	71.5 ± 9.6 years
Male, N (%)	68 (64.5%)
Type 2 Diabetes, N (%)	97 (91.5%)
Peripheral Neuropathy, N (%)	87 (82.1%)
Peripheral Artery Disease, N (%)	45 (42.4%)

Adherence Level	Patients N(%)	Ulcer Recurrence n/N (%)	Amputation n/N (%)
Whole Population	106 (100%)	15/106 (14.1%)	0/106 (0%)
Optimal	58 (54.7%)	3/58 (5.2%)	0/58 (0%)
Good	35 (33.0%)	4/35 (11.4%)	0/35 (0%)
Partial	6 (5.7%)	4/6 (66.7%)	0/6 (0%)
Poor	7 (6.6%)	4/7 (57.1%)	0/7 (0%)

χ^2-ANOVA: p=0.0001 difference between Optimal Vs Partial/Poor and Good Vs Partial/Poor



Conclusions

Excellent-to-good adherence was achieved in nearly 90%, suggesting that regular clinical follow-up in a dedicated diabetic foot clinic, is effective in promoting therapeutic footwear use in high-risk diabetic patients.

Partial-to-poor adherence is strongly and significantly associated with increased ulcer recurrence risk. Reinforcing adherence through multidisciplinary follow-up every 1-3 months could further reduce DFU recurrence rates and associated complications.

References

[1]Norman G. Likert scales, levels of measurement and the "laws" of statistics. Adv Health Sci Educ. 2010;15(5):625-632. doi:10.1007/s10459-010-9222-y